

Application No. 09/875,434

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (currently amended) A computer readable medium having stored
- 2 computer executable software for classifying image files of non-textual subject
- 3 data comprising:
- 4 a system decision module integrated within said computer
- 5 executable software configured to include:
- 6 (a) a task component having configured to perform
- 7 a plurality of classification tasks arranged in [[a]] an established
- 8 sequential progression of decision making, said established sequential
- 9 progression of decision making including a plurality of classification
- 10 nodes for assigning classes class labels to an individual image file of
- 11 said image files of non-textual subject data, at least some of said
- 12 classification nodes including algorithms for determining which of a
- 13 plurality of alternative next classification nodes is to be encountered in
- 14 said sequential progression of decision making;
- 15 (b) an algorithmic component having access to a
- 16 storage of available algorithms for execution at said classification
- 17 nodes, said algorithmic component being common to said classification
- 18 nodes and being accessed by each said classification node for select-
- 19 ing a specific algorithm for each of said classification tasks, said
- 20 specific algorithm being configured to execute at least one of content-
- 21 based analysis for processing content-based data and meta-data
- 22 analysis for processing meta-data, wherein for at least some of said
- 23 classification nodes said algorithmic component is configured to select
- 24 among alternative stored algorithms that are specific to determining
- 25 assignment of a same said class label, said algorithmic component
- 26 being further configured to use prior determinations at said
- 27 classification nodes as a basis for selecting among said alternative
- 28 stored algorithms specific to determining assignment of said same
- 29 class label;

30 (c) a sub-algorithmic component for selecting at least
31 one sub-algorithmic routine for said specific algorithm having a plurality
32 of sub-algorithm routines, said at least one sub-algorithmic routine
33 being selected based on said selecting said algorithm; and
34 (d) a learning component for modifying said
35 arrangement of classification tasks according to determinations of
36 ~~the frequencies of~~ frequency patterns in the common assignments of
37 said class labels to individual classes to said image files of non-textual
38 subject data.

1 2. (original) The system of claim 1 further comprising a system web-service
2 module for providing Internet access to said system decision module.

1 3. (original) The system of claim 1 further comprising a system interface
2 module for providing communications among a plurality of system and non-
3 system modules, wherein one of said system modules is said system decision
4 module.

1 4. (original) The system of claim 3 wherein each of said non-system modules
2 includes at least one said sub-algorithmic routine.

1 5. (currently amended) The system of claim 3 wherein said system interface
2 module further includes data components for storing data associated with
3 classifying a plurality of said image files of said non-textual subject data and
4 at least one control component for executing said sub-algorithmic routines.

1 6. (original) The system of claim 1 further comprising a media input/output
2 module for administering data associated with classifying said non-textual
3 subject data by reading and writing said data among a plurality of modules.

1 7. (original) The system of claim 1 wherein said learning component is
2 configured to identify an algorithm for each of said classification tasks and at
3 least one sub-algorithmic routine for said algorithm.

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1 8. (original) The system of claim 1 further comprising a data capturing device
2 configured to capture said content-based data and record said meta-data,
3 said content-based data corresponding to content information of a file of said
4 subject data and said meta-data corresponding to situational environmental
5 data of said data capturing device during a capture of said subject data.

1 9. (currently amended) A method for categorizing files of non-textual data
2 comprising the steps of:
3 establishing a sequential progression of decision making,
4 including using automated processing techniques to define a dependent
5 arrangement of a plurality of task nodes, each said task node in said
6 dependent arrangement being associated with a class label for classifying a
7 data file, at least some of said task nodes including algorithms for determining
8 which alternative next task node is to be selected in said sequential
9 progression of decision making, said task nodes including multi-algorithmic
10 task nodes having a plurality of alternative said algorithms for implementing
11 said determination, each said multi-algorithmic task node being specific to
12 determining assignment of a particular said class label and each said
13 alternative algorithm at said multi-algorithmic task node being specific to said
14 particular class label;
15 receiving a file of non-textual subject data; and
16 progressing said file through said dependent arrangement
17 defined in said establishing said sequential progression of decision making,
18 including (a) selecting from among said alternative algorithms at said
19 multi-algorithmic ~~decision~~ task nodes, and (b) utilizing an algorithmic
20 component to perform said selection, said selection at least partially based on
21 prior determinations at previously encountered task nodes in said sequential
22 progression.

1 10. (original) The method of claim 9 wherein said step of establishing
2 includes a learning procedure in which content-based data is extracted from
3 each of a plurality of training images and meta-data is identified for each said
4 training image.

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1 11. (currently amended) The method of claim 10 further comprising a step of
2 generating a plurality of learning classes that are descriptive of said training
3 images, including using an association pattern technique of recognizing and
4 using patterns in assignments of said class labels, said step of generating
5 including applying content-based analysis for said content-based data and
6 meta-data analysis for said meta-data.

1 12. (original) The method of claim 9 further comprising a step of dynamically
2 modifying said sequential progression of decision making, including
3 monitoring said determinations at each of said decision nodes and adjusting
4 for detected patterns in said determinations.

1 13. (original) The method of claim 9 further comprising a step of assigning a
2 semantic description to said file of non-textual subject data for one of
3 organizing said file and matching a query during a search for said file.

1 14. (cancelled)

1 15. (cancelled)

1 16. (cancelled)

1 17. (cancelled)

1 18. (cancelled)